

Notice of Allowability

Application No.

10/766,921

Examiner

David Nhu

Applicant(s)

MORITA ET AL.

Art Unit

2818

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 1/26/06.
2. ☒ The allowed claim(s) is/are 1 and 3-28.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 02
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____



REASONS FOR ALLOWANCE

1. Claims 1, 3-28 are allowed.
2. The following is an examiner's statement of reasons for allowance: None of the references of record teaches or suggests as cited in claims 1, 15, 19, 24: introducing a gas having a thermal conductivity of 0.1 W/mK or greater into the chamber, thereby contacting the gas with the substrate for stabilization of a temperature of the substrate; wherein said gas having a thermal conductivity of 0.1 W/mK or greater comprises hydrogen or helium (as cited in claim 10; introducing hydrogen or helium gas into the chamber, thereby contacting the gas with the substrate for stabilization of a temperature of the substrate; introducing an organic silane and an inert gas into the chamber after evacuating the hydrogen or helium gas; depositing a SiCH layer on or over the substrate using the organic silane and the inert gas while plasma is present in the chamber (as cited in claim 15); introducing hydrogen or helium gas into the chamber, thereby contacting the gas with the substrate for stabilization of a temperature of the substrate; introducing an organic silane, an inert gas and a nitrogen-containing gas into the chamber after evacuating the hydrogen or helium gas; depositing a SiCHN layer on or over the substrate using the organic silane, the inert gas and the nitrogen-containing gas while plasma is present in the chamber (as cited in claim 19); introducing hydrogen or helium gas into the chamber, thereby contacting the gas with the substrate for stabilization of a temperature of the substrate; introducing an organic silane, an inert gas and an oxidizing gas into the chamber after evacuating the hydrogen or helium gas; depositing a SiOCHI layer on or over the substrate using the organic silane, the inert gas and the oxidizing gas while plasma is present in the chamber (as cited in claim 24).

3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

CONCLUSION

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Subramony et al (6,713,127 B2): Methods for Silicon Oxide and Oxynitride Deposition Using Single Wafer Low Pressure CVD.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Nhu, (571)272-1792. The examiner can normally be reached on Monday-Friday from 7:30 AM to 5:00 PM.

The examiner's supervisor, David Nelms can be reached on (571)272-1787.

The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

David Nhu



January 26, 2006


DAVID NHU
PRIMARY EXAMINER